

REMARKS/ARGUMENTS

This Amendment is filed concurrently with a Request for Continued Examination.

Reconsideration of this application is requested. Claims 1-7 will be pending in the application subsequent to the entry of this amendment.

There are no prior art-based rejections.

The sole issue raised in the Official Action is the rejection under 35 USC §112, paragraph 1 (written description) of claims 1-7 as including subject matter not described in the specification, and in particular in claim 1 the limitation that specifies "only compressed expanded graphite particles" are used to form the heat-resistant expanded graphite sheet. In this amendment the heat-resistant expanded graphite sheet comprises of an organic phosphorus compound and graphite particles consisting of compressed expanded graphite particles of the type specified. This expression is consistent with the description of the invention and thus the rejection is rendered moot.

The amended claims are also consistent with the embodiments of the invention. Applicants describe the expanded graphite in their specification as follows:

<Method of Manufacturing Heat-Resistant Expanded Graphite Sheet: I>

These expanded graphite particles are fed to a twin roller apparatus and is subjected to roll forming, thereby fabricating a heat-resistant expanded graphite sheet having a desired thickness. (Refer to page 8, line 15 to page 9, line 14 of the specification.)

<Method of Manufacturing Heat-Resistant Expanded Graphite Sheet: II>

This mixture is fed to the twin roller apparatus and is subjected to roll forming, thereby fabricating a heat-resistant expanded graphite sheet having a desired thickness. (Refer to page 9, line 15 to page 10, line 1 of the specification.)

These expanded graphite particles were subjected to roll forming by being passed through a reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm. These expanded graphite sheets respectively contained (1) 0.1% by weight of phenylphosphonic acid and 99.9% by weight of expanded graphite, (2) 0.5% by weight of phenylphosphonic acid and 99.5% by weight of expanded graphite, (3) 1.0% by weight of phenylphosphonic acid and 99.0% by weight of expanded graphite, (4) 2.0% by weight of phenylphosphonic acid and 98.0% by weight of expanded graphite, (5) 4.0% by weight of phenylphosphonic acid and 96.0% by

weight of expanded graphite, (6) 6.0% by weight of phenylphosphonic acid and 94.0% by weight of expanded graphite, (7) 8.0% by weight of phenylphosphonic acid and 92.0% by weight of expanded graphite, and (8) 10.0% by weight of phenylphosphonic acid and 90.0% by weight of expanded graphite. (Refer to page 16, lines 3 to 15 of the specification.)

These expanded graphite particles were subjected to roll forming by being passed through the reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm. The expanded graphite sheets thus fabricated respectively contained (9) 1.0% by weight of phenylphosphonic acid diethyl and 99.0% by weight of expanded graphite, (10) 2.0% by weight of phenylphosphonic acid diethyl and 98.0% by weight of expanded graphite, (11) 4.0% by weight of phenylphosphonic acid diethyl and 96.0% by weight of expanded graphite, and (12) 6.0% by weight of phenylphosphonic acid diethyl and 94.0% by weight of expanded graphite. (Refer to page 17, lines 5 to 12 of the specification.)

These expanded graphite particles were subjected to roll forming by being passed through the reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm. The expanded graphite sheets thus fabricated respectively contained (13) 1.0% by weight of diphenylphosphinic acid and 99.0% by weight of expanded graphite, (14) 2.0% by weight of diphenylphosphinic acid and 98.0% by weight of expanded graphite, (15) 4.0% by weight of diphenylphosphinic acid and 96.0% by weight of expanded graphite, and (16) 6.0% by weight of diphenylphosphinic acid and 94.0% by weight of expanded graphite. (Refer to page 18, lines 1 to 8 of the specification.)

These expanded graphite particles were subjected to roll forming by being passed through the reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm. The expanded graphite sheets thus fabricated respectively contained (17) 1.0% by weight of phenylphosphinic acid and 99.0% by weight of expanded graphite, (18) 2.0% by weight of phenylphosphinic acid and 98.0% by weight of expanded graphite, (19) 4.0% by weight of phenylphosphinic acid and 96.0% by weight of expanded graphite, and (20) 6.0% by weight of phenylphosphinic acid and 94.0% by weight of expanded graphite. (Refer to page 18, line 21 to page 19, line 4 of the specification.)

These expanded graphite particles were subjected to roll forming by being passed through the reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm.

The expanded graphite sheets thus fabricated respectively contained (21) 1.0% by weight of diphenyl phosphate and 99.0% by weight of expanded graphite, (22) 2.0% by weight of diphenyl phosphate and 98.0% by weight of expanded graphite, (23) 4.0% by weight of diphenyl phosphate and 96.0% by weight of expanded graphite, and (24) 6.0% by weight of diphenyl phosphate and 94.0% by weight of expanded graphite. (Refer to page 19, line 18 to page 20, line 1 of the specification).

These expanded graphite particles were subjected to roll forming by being passed through the reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm. The expanded graphite sheets thus fabricated respectively contained (25) 1.0% by weight of triphenyl phosphite and 99.0% by weight of expanded graphite, (26) 2.0% by weight of triphenyl phosphite and 98.0% by weight of expanded graphite, (27) 4.0% by weight of triphenyl phosphite and 96.0% by weight of expanded graphite, and (28) 6.0% by weight of triphenyl phosphite and 94.0% by weight of expanded graphite. (Refer to page 20, lines 15 to 22 of the specification).

These expanded graphite particles were subjected to roll forming by being passed through the reduction roll, thereby fabricating expanded graphite sheets having a thickness of 0.38 mm. The expanded graphite sheets thus fabricated respectively contained (29) 1.0% by weight of dimethyl phosphonite and 99.0% by weight of expanded graphite, (30) 2.0% by weight of dimethyl phosphonite and 98.0% by weight of expanded graphite, (31) 4.0% by weight of dimethyl phosphonite and 96.0% by weight of expanded graphite, and (32) 6.0% by weight of dimethyl phosphonite and 94.0% by weight of expanded graphite. (Refer to page 21, lines 13 to 20 of the specification.)

As seen from the above description, the specification discloses the heat-resistant expanded graphite sheet including an organic phosphorus compound, and only compressed expanded graphite with respect to graphite particles, does not disclose the heat-resistant expanded graphite sheet including the non-expanded graphite particles.


For the above reasons claims 1-7 should be allowed.

There are no prior art rejections of record.

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Respectfully submitted,

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